

ANDREW MINERAL TURPENTINE

Damar Industries Limited

Chemwatch Hazard Alert Code: 2

Version No: 1.4

Safety Data Sheet according to HSNO Regulations

Issue Date: 27/01/2017

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S.GHS.NZL.EN

SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

Product Identifier

Product name	ANDREW MINERAL TURPENTINE
Synonyms	ALE0103; ALF0103; ALG0103; ALJ0103; ALK0103; ALL0103; ALP0103; ALQ0103; ALT0103; ALZ0103
Proper shipping name	TURPENTINE SUBSTITUTE
Other means of identification	Not Available

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	Solvent for paint thinning, cleaning.
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Details of the supplier of the safety data sheet

Registered company name	Damar Industries Limited
Address	800 Te Ngae Road, Eastgate Business Park, Rotorua 3042, New Zealand
Telephone	0800 334475
Fax	+64 7 345 6019
Website	www.damarindustries.co.nz
Email	info@damarindustries.co.nz

Emergency telephone number

Association / Organisation	CHEMCALL (0800 CHEMCALL)
Emergency telephone numbers	0800 243 622
Other emergency telephone numbers	1800 127 406 (outside New Zealand)

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

Considered a Hazardous Substance according to the criteria of the New Zealand Hazardous Substances New Organisms legislation. Classified as Dangerous Goods for transport purposes.

CHEMWATCH HAZARD RATINGS

	Min	Max
Flammability	2	2
Toxicity	1	1
Body Contact	2	2
Reactivity	1	1
Chronic	2	2

0 = Minimum
1 = Low
2 = Moderate
3 = High
4 = Extreme

Classification ^[1]	Flammable Liquid Category 3, Acute Toxicity (Dermal) Category 5, Skin Corrosion/Irritation Category 3, Eye Irritation Category 2A, Reproductive Toxicity Category 2, Specific target organ toxicity - repeated exposure Category 2, Aspiration Hazard Category 1, Acute Aquatic Hazard Category 2, Chronic Aquatic Hazard Category 2
Legend:	1. Classified by Chemwatch; 2. Classification drawn from CCID EPA NZ; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI

ANDREW MINERAL TURPENTINE

Determined by
Chemwatch using
GHS/HSNO criteria

3.1C, 6.1E (aspiration), 6.1E (dermal), 6.3B, 6.4A, 6.8B, 6.9B, 9.1B, 9.1D

Label elements

Hazard pictogram(s)



SIGNAL WORD

DANGER

Hazard statement(s)

H226	Flammable liquid and vapour.
H313	May be harmful in contact with skin.
H316	Causes mild skin irritation.
H319	Causes serious eye irritation.
H361	Suspected of damaging fertility or the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H304	May be fatal if swallowed and enters airways.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statement(s) Prevention

P201	Obtain special instructions before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.

Precautionary statement(s) Response

P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor/physician/first aider.
P308+P313	IF exposed or concerned: Get medical advice/ attention.
P331	Do NOT induce vomiting.
P370+P378	In case of fire: Use alcohol resistant foam or normal protein foam to extinguish.

Precautionary statement(s) Storage

P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

Precautionary statement(s) Disposal

P501	Dispose of contents/container in accordance with local regulations.
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SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
64742-82-1.	60-65	<u>naphtha petroleum, heavy, hydrodesulfurised</u>
64742-95-6.	35-40	<u>naphtha petroleum, light aromatic solvent</u>
Not Available		may contain:
95-63-6	<20	<u>1,2,4-trimethyl benzene</u>
108-67-8	<7	<u>1,3,5-trimethyl benzene</u>
98-82-8	<3	<u>cumene</u>
1330-20-7	<1	<u>xylene</u>

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SECTION 4 FIRST AID MEASURES

Description of first aid measures

Eye Contact	<p>If this product comes in contact with the eyes:</p> <ul style="list-style-type: none"> ▶ Immediately hold eyelids apart and flush the eye continuously with running water. ▶ Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. ▶ Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. ▶ Transport to hospital or doctor without delay. ▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	<p>If skin contact occurs:</p> <ul style="list-style-type: none"> ▶ Immediately remove all contaminated clothing, including footwear. ▶ Flush skin and hair with running water (and soap if available). ▶ Seek medical attention in event of irritation.
Inhalation	<ul style="list-style-type: none"> ▶ If fumes or combustion products are inhaled remove from contaminated area. ▶ Lay patient down. Keep warm and rested. ▶ Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. ▶ Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. ▶ Transport to hospital, or doctor.
Ingestion	<ul style="list-style-type: none"> ▶ If swallowed do NOT induce vomiting. ▶ If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. ▶ Observe the patient carefully. ▶ Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. ▶ Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. ▶ Seek medical advice. ▶ Avoid giving milk or oils. ▶ Avoid giving alcohol. ▶ If spontaneous vomiting appears imminent or occurs, hold patient's head down, lower than their hips to help avoid possible aspiration of vomitus.

Indication of any immediate medical attention and special treatment needed

Any material aspirated during vomiting may produce lung injury. Therefore emesis should not be induced mechanically or pharmacologically. Mechanical means should be used if it is considered necessary to evacuate the stomach contents; these include gastric lavage after endotracheal intubation. If spontaneous vomiting has occurred after ingestion, the patient should be monitored for difficult breathing, as adverse effects of aspiration into the lungs may be delayed up to 48 hours.

For acute or short term repeated exposures to xylene:

- ▶ Gastro-intestinal absorption is significant with ingestions. For ingestions exceeding 1-2 ml (xylene)/kg, intubation and lavage with cuffed endotracheal tube is recommended. The use of charcoal and cathartics is equivocal.
- ▶ Pulmonary absorption is rapid with about 60-65% retained at rest.
- ▶ Primary threat to life from ingestion and/or inhalation, is respiratory failure.
- ▶ Patients should be quickly evaluated for signs of respiratory distress (e.g. cyanosis, tachypnoea, intercostal retraction, obtundation) and given oxygen. Patients with inadequate tidal volumes or poor arterial blood gases (pO₂ < 50 mm Hg or pCO₂ > 50 mm Hg) should be intubated.
- ▶ Arrhythmias complicate some hydrocarbon ingestion and/or inhalation and electrocardiographic evidence of myocardial injury has been reported; intravenous lines and cardiac monitors should be established in obviously symptomatic patients. The lungs excrete inhaled solvents, so that hyperventilation improves clearance.
- ▶ A chest x-ray should be taken immediately after stabilisation of breathing and circulation to document aspiration and detect the presence of pneumothorax.
- ▶ Epinephrine (adrenalin) is not recommended for treatment of bronchospasm because of potential myocardial sensitisation to catecholamines. Inhaled cardioselective bronchodilators (e.g. Alupent, Salbutamol) are the preferred agents, with aminophylline a second choice.

BIOLOGICAL EXPOSURE INDEX - BEI

These represent the determinants observed in specimens collected from a healthy worker exposed at the Exposure Standard (ES or TLV):

Determinant	Index	Sampling Time	Comments
Methylhippu-ric acids in urine	1.5 gm/gm creatinine	End of shift	
	2 mg/min	Last 4 hrs of shift	

SECTION 5 FIREFIGHTING MEASURES

Extinguishing media

- ▶ Foam.
- ▶ Dry chemical powder.
- ▶ BCF (where regulations permit).
- ▶ Carbon dioxide.

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Special hazards arising from the substrate or mixture

Fire Incompatibility	<ul style="list-style-type: none"> ▶ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result
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Advice for firefighters

Fire Fighting	<ul style="list-style-type: none"> ▶ Alert Fire Brigade and tell them location and nature of hazard. ▶ May be violently or explosively reactive. ▶ Wear breathing apparatus plus protective gloves. ▶ Prevent, by any means available, spillage from entering drains or water course.
Fire/Explosion Hazard	<ul style="list-style-type: none"> ▶ Liquid and vapour are flammable. ▶ Moderate fire hazard when exposed to heat or flame. ▶ Vapour forms an explosive mixture with air. ▶ Moderate explosion hazard when exposed to heat or flame. <p>Combustion products include:</p> <ul style="list-style-type: none"> ▸ carbon monoxide (CO) ▸ carbon dioxide (CO₂) ▸ other pyrolysis products typical of burning organic material. <p>May emit clouds of acrid smoke</p>

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

Minor Spills	<ul style="list-style-type: none"> ▶ Remove all ignition sources. ▶ Clean up all spills immediately. ▶ Avoid breathing vapours and contact with skin and eyes. ▶ Control personal contact with the substance, by using protective equipment.
Major Spills	<ul style="list-style-type: none"> ▶ Clear area of personnel and move upwind. ▶ Alert Fire Brigade and tell them location and nature of hazard. ▶ May be violently or explosively reactive. ▶ Wear breathing apparatus plus protective gloves.

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

Safe handling	<ul style="list-style-type: none"> ▶ Containers, even those that have been emptied, may contain explosive vapours. ▶ Do NOT cut, drill, grind, weld or perform similar operations on or near containers. ▶ Electrostatic discharge may be generated during pumping - this may result in fire. ▶ Ensure electrical continuity by bonding and grounding (earthing) all equipment. ▶ Restrict line velocity during pumping in order to avoid generation of electrostatic discharge (<=1 m/sec until fill pipe submerged to twice its diameter, then <= 7 m/sec). ▶ Avoid splash filling. ▶ Avoid all personal contact, including inhalation. ▶ Wear protective clothing when risk of overexposure occurs. ▶ Use in a well-ventilated area. ▶ Prevent concentration in hollows and sumps.
Other information	<ul style="list-style-type: none"> ▶ Store in original containers in approved flammable liquid storage area. ▶ Store away from incompatible materials in a cool, dry, well-ventilated area. ▶ DO NOT store in pits, depressions, basements or areas where vapours may be trapped. ▶ No smoking, naked lights, heat or ignition sources.

Conditions for safe storage, including any incompatibilities

Suitable container	<ul style="list-style-type: none"> ▶ Packing as supplied by manufacturer. ▶ Plastic containers may only be used if approved for flammable liquid. ▶ Check that containers are clearly labelled and free from leaks.
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	<ul style="list-style-type: none"> ▶ For low viscosity materials (i) : Drums and jerry cans must be of the non-removable head type. (ii) : Where a can is to be used as an inner package, the can must have a screwed enclosure. ▶ For materials with a viscosity of at least 2680 cSt. (23 deg. C) ▶ For manufactured product having a viscosity of at least 250 cSt.
Storage incompatibility	<p>Xylenes:</p> <ul style="list-style-type: none"> ▶ may ignite or explode in contact with strong oxidisers, 1,3-dichloro-5,5-dimethylhydantoin, uranium fluoride ▶ attack some plastics, rubber and coatings ▶ may generate electrostatic charges on flow or agitation due to low conductivity. ▶ Vigorous reactions, sometimes amounting to explosions, can result from the contact between aromatic rings and strong oxidising agents. ▶ Aromatics can react exothermically with bases and with diazo compounds. <p>Low molecular weight alkanes:</p> <ul style="list-style-type: none"> ▶ May react violently with strong oxidisers, chlorine, chlorine dioxide, dioxygenyl tetrafluoroborate. ▶ May react with oxidising materials, nickel carbonyl in the presence of oxygen, heat. ▶ Are incompatible with nitronium tetrafluoroborate(1-), halogens and interhalogens ▶ may generate electrostatic charges, due to low conductivity, on flow or agitation. ▶ Avoid flame and ignition sources <p>Redox reactions of alkanes, in particular with oxygen and the halogens, are possible as the carbon atoms are in a strongly reduced condition.</p> <p>For alkyl aromatics:</p> <p>The alkyl side chain of aromatic rings can undergo oxidation by several mechanisms. The most common and dominant one is the attack by oxidation at benzylic carbon as the intermediate formed is stabilised by resonance structure of the ring.</p> <ul style="list-style-type: none"> ▶ Following reaction with oxygen and under the influence of sunlight, a hydroperoxide at the alpha-position to the aromatic ring, is the primary oxidation product formed (provided a hydrogen atom is initially available at this position) - this product is often short-lived but may be stable dependent on the nature of the aromatic substitution; a secondary C-H bond is more easily attacked than a primary C-H bond whilst a tertiary C-H bond is even more susceptible to attack by oxygen ▶ Monoalkylbenzenes may subsequently form monocarboxylic acids; alkyl naphthalenes mainly produce the corresponding naphthalene carboxylic acids. ▶ Oxidation in the presence of transition metal salts not only accelerates but also selectively decomposes the hydroperoxides.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
New Zealand Workplace Exposure Standards (WES)	naphtha petroleum, heavy, hydrodesulfurised	White spirits (Stoddard solvent)	100 ppm / 525 mg/m ³	Not Available	Not Available	Not Available
New Zealand Workplace Exposure Standards (WES)	cumene	Cumene	25 ppm / 125 mg/m ³	375 mg/m ³ / 75 ppm	Not Available	(skin) - Skin absorption
New Zealand Workplace Exposure Standards (WES)	xylene	Dimethylbenzene (see Xylene)	50 ppm / 217 mg/m ³	Not Available	Not Available	Not Available

EMERGENCY LIMITS


Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
naphtha petroleum, heavy, hydrodesulfurised	Stoddard solvent; (Mineral spirits, 85% nonane and 15% trimethyl benzene)	300 mg/m ³	1,800 mg/m ³	29500 mg/m ³
1,2,4-trimethyl benzene	Permafluor E+	140 mg/m ³	360 mg/m ³	2,200 mg/m ³
1,2,4-trimethyl benzene	Trimethylbenzene, 1,2,4-; (Pseudocumene)	Not Available	Not Available	480 ppm
1,3,5-trimethyl benzene	Mesitylene; (1,3,5-Trimethylbenzene)	Not Available	Not Available	480 ppm
cumene	Cumene; (Isopropyl benzene)	Not Available	Not Available	Not Available
xylene	Xylenes	Not Available	Not Available	Not Available

Ingredient	Original IDLH	Revised IDLH
naphtha petroleum, heavy, hydrodesulfurised	20,000 mg/m ³	Not Available

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naphtha petroleum, light aromatic solvent	Not Available	Not Available
may contain:	Not Available	Not Available
1,2,4-trimethyl benzene	Not Available	Not Available
1,3,5-trimethyl benzene	Not Available	Not Available
cumene	900 ppm	Not Available
xylene	900 ppm	Not Available

Exposure controls

Appropriate engineering controls	<p>Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.</p> <p>The basic types of engineering controls are:</p> <p>Process controls which involve changing the way a job activity or process is done to reduce the risk.</p> <p>Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment.</p>
Personal protection	
Eye and face protection	<ul style="list-style-type: none"> ▶ Safety glasses with side shields. ▶ Chemical goggles. ▶ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task.
Skin protection	See Hand protection below
Hands/feet protection	<ul style="list-style-type: none"> ▶ Wear chemical protective gloves, e.g. PVC. ▶ Wear safety footwear or safety gumboots, e.g. Rubber
Body protection	See Other protection below
Other protection	<ul style="list-style-type: none"> ▶ Overalls. ▶ PVC Apron. ▶ PVC protective suit may be required if exposure severe. ▶ Eyewash unit. ▶ Some plastic personal protective equipment (PPE) (e.g. gloves, aprons, overshoes) are not recommended as they may produce static electricity. ▶ For large scale or continuous use wear tight-weave non-static clothing (no metallic fasteners, cuffs or pockets). ▶ Non sparking safety or conductive footwear should be considered. Conductive footwear describes a boot or shoe with a sole made from a conductive compound chemically bound to the bottom components, for permanent control to electrically ground the foot and shall dissipate static electricity from the body to reduce the possibility of ignition of volatile compounds.

Recommended material(s)

GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the:

"Forsberg Clothing Performance Index".

The effect(s) of the following substance(s) are taken into account in the **computer-generated** selection:

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Material	CPI
BUTYL	C
BUTYL/NEOPRENE	C
HYPALON	C
NAT+NEOPR+NITRILE	C
NATURAL+NEOPRENE	C
NEOPRENE	C
NEOPRENE/NATURAL	C
NITRILE	C
NITRILE+PVC	C
PE/EVAL/PE	C
PVA	C
PVC	C

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PVDC/PE/PVDC	C
TEFLON	C
VITON	C

* CPI - Chemwatch Performance Index

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion

C: Poor to Dangerous Choice for other than short term immersion

NOTE: As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -

* Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Clear, colourless liquid		
Physical state	Liquid	Relative density (Water = 1)	0.81-0.82
Odour	Sharp	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	>200
pH (as supplied)	Not Applicable	Decomposition temperature	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	154-192	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	41	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Flammable.	Oxidising properties	Not Available
Upper Explosive Limit (%)	7.0	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	0.6	Volatile Component (%vol)	100
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water	Immiscible	pH as a solution (1%)	Not Applicable
Vapour density (Air = 1)	Not Available	VOC g/L	810

SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	<ul style="list-style-type: none"> ▶ Unstable in the presence of incompatible materials. ▶ Product is considered stable. ▶ Hazardous polymerisation will not occur.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

Inhaled	<p>Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by sleepiness, reduced alertness, loss of reflexes, lack of co-ordination, and vertigo.</p> <p>Inhalation of vapours or aerosols (mists, fumes), generated by the material during the course of normal handling, may be damaging to the health of the individual.</p>
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	<p>There is some evidence to suggest that the material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage.</p> <p>The acute toxicity of inhaled alkylbenzene is best described by central nervous system depression. These compounds may also act as general anaesthetics. Whole body symptoms of poisoning include light-headedness, nervousness, apprehension, a feeling of well-being, confusion, dizziness, drowsiness, ringing in the ears, blurred or double vision, vomiting and sensations of heat, cold or numbness, twitching, tremors, convulsions, unconsciousness, depression of breathing, and arrest. Heart stoppage may result from cardiovascular collapse.</p> <p>Inhalation of high concentrations of gas/vapour causes lung irritation with coughing and nausea, central nervous depression with headache and dizziness, slowing of reflexes, fatigue and inco-ordination.</p> <p>Central nervous system (CNS) depression may include general discomfort, symptoms of giddiness, headache, dizziness, nausea, anaesthetic effects, slowed reaction time, slurred speech and may progress to unconsciousness. Serious poisonings may result in respiratory depression and may be fatal.</p> <p>On exposure to mixed trimethylbenzenes, some people may become nervous, tensed, anxious and have difficult breathing. There may be a reduction red blood cells and bleeding abnormalities. There may also be drowsiness.</p> <p>Exposure to white spirit may cause nausea and vertigo.</p> <p>Headache, fatigue, tiredness, irritability and digestive disturbances (nausea, loss of appetite and bloating) are the most common symptoms of xylene overexposure. Injury to the heart, liver, kidneys and nervous system has also been noted amongst workers.</p> <p>Xylene is a central nervous system depressant</p>
Ingestion	<p>Swallowing of the liquid may cause aspiration into the lungs with the risk of chemical pneumonitis; serious consequences may result. (ICSC13733)</p> <p>Accidental ingestion of the material may be seriously damaging to the health of the individual; animal experiments indicate that ingestion of less than 40 gram may be fatal.</p>
Skin Contact	<p>Repeated exposure may cause skin cracking, flaking or drying following normal handling and use.</p> <p>Skin contact with the material may damage the health of the individual; systemic effects may result following absorption. There is some evidence to suggest that this material can cause inflammation of the skin on contact in some persons.</p> <p>The liquid may be able to be mixed with fats or oils and may degrease the skin, producing a skin reaction described as non-allergic contact dermatitis. The material is unlikely to produce an irritant dermatitis as described in EC Directives. The material may accentuate any pre-existing dermatitis condition</p> <p>Open cuts, abraded or irritated skin should not be exposed to this material</p> <p>Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.</p>
Eye	<p>This material can cause eye irritation and damage in some persons.</p>
Chronic	<p>Repeated or long-term occupational exposure is likely to produce cumulative health effects involving organs or biochemical systems.</p> <p>Harmful: danger of serious damage to health by prolonged exposure through inhalation.</p> <p>This material can cause serious damage if one is exposed to it for long periods. It can be assumed that it contains a substance which can produce severe defects.</p> <p>Ample evidence from experiments exists that there is a suspicion this material directly reduces fertility.</p> <p>Based on experience with animal studies, exposure to the material may result in toxic effects to the development of the foetus, at levels which do not cause significant toxic effects to the mother.</p> <p>Prolonged or repeated skin contact may cause drying with cracking, irritation and possible dermatitis following.</p> <p>There has been concern that this material can cause cancer or mutations, but there is not enough data to make an assessment.</p> <p>Women exposed to xylene in the first 3 months of pregnancy showed a slightly increased risk of miscarriage and birth defects. Evaluation of workers chronically exposed to xylene has demonstrated lack of genetic toxicity.</p> <p>Exposure to the material for prolonged periods may cause physical defects in the developing embryo (teratogenesis).</p> <p>Chronic solvent inhalation exposures may result in nervous system impairment and liver and blood changes. [PATTYS]</p>

ANDREW MINERAL TURPENTINE	TOXICITY	IRRITATION
	Not Available	Not Available
naphtha petroleum, heavy, hydrodesulfurised	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: >1900 mg/kg ^[1]	Eye: no adverse effect observed (not irritating) ^[1]
	Oral (rat) LD50: >4500 mg/kg ^[1]	Skin: adverse effect observed (irritating) ^[1]
		Skin: no adverse effect observed (not irritating) ^[1]
naphtha petroleum, light aromatic solvent	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: >1900 mg/kg ^[1]	Eye: no adverse effect observed (not irritating) ^[1]
	Inhalation (rat) LC50: >7331.62506 mg/l/8h* ^[2]	Skin: adverse effect observed (irritating) ^[1]
	Oral (rat) LD50: >4500 mg/kg ^[1]	
1,2,4-trimethyl benzene	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: >3160 mg/kg ^[2]	Not Available
	Inhalation (rat) LC50: 18 mg/l/4hd ^[2]	

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	Oral (rat) LD50: 5000 mg/kg ^[1]	
1,3,5-trimethyl benzene	TOXICITY	IRRITATION
	Inhalation (rat) LC50: 24 mg/l/4hd ^[2]	Eye (rabbit): 500 mg/24h mild
	Oral (rat) LD50: 5000 mg/kg ^[1]	Eye: adverse effect observed (irritating) ^[1]
		Skin (rabbit): 20 mg/24h moderate
		Skin: adverse effect observed (irritating) ^[1]
cumene	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: 2000 mg/kg ^[2]	Eye (rabbit): 500 mg/24h mild
	Inhalation (rat) LC50: 39 mg/l/4H ^[2]	Eye (rabbit): 86 mg mild
	Oral (rat) LD50: 1400 mg/kg ^[2]	Eye: no adverse effect observed (not irritating) ^[1]
		Skin (rabbit): 10 mg/24h mild
		Skin (rabbit):100 mg/24h moderate
		Skin: no adverse effect observed (not irritating) ^[1]
xylene	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: >1700 mg/kg ^[2]	Eye (human): 200 ppm irritant
	Inhalation (rat) LC50: 4994.295 mg/l/4h ^[2]	Eye (rabbit): 5 mg/24h SEVERE
	Oral (rat) LD50: 3523-8700 mg/kg ^[2]	Eye (rabbit): 87 mg mild
		Eye: adverse effect observed (irritating) ^[1]
		Skin (rabbit):500 mg/24h moderate
		Skin: adverse effect observed (irritating) ^[1]
Legend:	1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. * Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances	

NAPHTHA PETROLEUM, HEAVY, HYDRODESULFURISED	No significant acute toxicological data identified in literature search.
NAPHTHA PETROLEUM, LIGHT AROMATIC SOLVENT	<p>For Low Boiling Point Naphthas (LBPNs):</p> <p>Acute toxicity: LBPNs generally have low acute toxicity by the oral (median lethal dose [LD50] in rats > 2000 mg/kg-bw), inhalation (LD50 in rats > 5000 mg/m3) and dermal (LD50 in rabbits > 2000 mg/kg-bw) routes of exposure Most LBPNs are mild to moderate eye and skin irritants in rabbits, with the exception of heavy catalytic cracked and heavy catalytic reformed naphthas, which have higher primary skin irritation indices.</p> <p>Sensitisation: LBPNs do not appear to be skin sensitizers, but a poor response in the positive control was also noted in these studies</p> <p>Repeat dose toxicity: The lowest-observed-adverse-effect concentration (LOAEC) and lowest-observed-adverse-effect level (LOAEL) values identified following short-term (2-89 days) and subchronic (greater than 90 days) exposure to the LBPN substances. These values were determined for a variety of endpoints after considering the toxicity data for all LBPNs in the group. Most of the studies were carried out by the inhalation route of exposure. Inhalation (rat) TCLo: 1320 ppm/6h/90D-I * [Devoe]</p>
1,2,4-TRIMETHYL BENZENE	CHEMWATCH 2325 1,3,5-trimethylbenzene
1,3,5-TRIMETHYL BENZENE	The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. CHEMWATCH 12171 1,2,4-trimethylbenzene
CUMENE	<p>For aromatic terpenes: p-cymene and cumene have low toxic potential and are excreted in the urine. At very high doses in animal testing, inco-ordination, damage to the kidneys and lung inflammation, with decrease in thymus weight, occurred. This group of substances does not seem to cause cancer, genetic damage or developmental toxicity and has low potential for reproductive toxicity.</p> <p>Tenth Annual Report on Carcinogens: Substance anticipated to be Carcinogen [National Toxicology Program: U.S. Dep. of Health & Human Services 2002]</p> <p>WARNING: This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans. Cumene is reasonably anticipated to be a human carcinogen based on sufficient evidence of carcinogenicity from studies in experimental animals. Cumene caused tumours at several tissue sites, including lung and liver in mice and kidney in</p>

ANDREW MINERAL TURPENTINE

	<p>male rats. Several proposed mechanisms of carcinogenesis support the relevance to humans of lung and liver tumours in experimental animals. Specifically, there is evidence that humans and experimental animals metabolise cumene through similar metabolic pathways. There is also evidence that cumene is genotoxic in some tissues, based on findings of DNA damage in rodent lung and liver. Furthermore, mutations of the K-ras oncogene and p53 tumor-suppressor gene observed in cumene-induced lung tumours in mice, along with altered expression of many other genes, resemble molecular alterations found in human lung and other cancers. The relevance of the kidney tumors to cancer in humans is uncertain; there is evidence that a species-specific mechanism not relevant to humans contributes to their induction, but it is possible that other mechanisms relevant to humans, such as genotoxicity, may also contribute to kidney-tumour formation in male rats.</p>
XYLENE	<p>The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.</p> <p>The substance is classified by IARC as Group 3: NOT classifiable as to its carcinogenicity to humans. Evidence of carcinogenicity may be inadequate or limited in animal testing. Reproductive effector in rats</p>
ANDREW MINERAL TURPENTINE & NAPHTHA PETROLEUM, HEAVY, HYDRODESULFURISED & NAPHTHA PETROLEUM, LIGHT AROMATIC SOLVENT & 1,2,4-TRIMETHYL BENZENE & 1,3,5-TRIMETHYL BENZENE	<p>For trimethylbenzenes: Absorption of 1,2,4-trimethylbenzene occurs after exposure by swallowing, inhalation, or skin contact. In the workplace, inhalation and skin contact are the most important routes of absorption; whole-body toxic effects from skin absorption are unlikely to occur as the skin irritation caused by the chemical generally leads to quick removal. The substance is fat-soluble and may accumulate in fatty tissues. It is also bound to red blood cells in the bloodstream.</p>
ANDREW MINERAL TURPENTINE & NAPHTHA PETROLEUM, HEAVY, HYDRODESULFURISED & NAPHTHA PETROLEUM, LIGHT AROMATIC SOLVENT	<p>For petroleum: This product contains benzene, which can cause acute myeloid leukaemia, and n-hexane, which can be metabolized to compounds which are toxic to the nervous system. This product contains toluene, and animal studies suggest high concentrations of toluene lead to hearing loss. This product contains ethyl benzene and naphthalene, from which animal testing shows evidence of tumour formation.</p> <p>Cancer-causing potential: Animal testing shows inhaling petroleum causes tumours of the liver and kidney; these are however not considered to be relevant in humans.</p>
NAPHTHA PETROLEUM, HEAVY, HYDRODESULFURISED & NAPHTHA PETROLEUM, LIGHT AROMATIC SOLVENT	<p>Animal studies indicate that normal, branched and cyclic paraffins are absorbed from the gastrointestinal tract and that the absorption of n-paraffins is inversely proportional to the carbon chain length, with little absorption above C30. With respect to the carbon chain lengths likely to be present in mineral oil, n-paraffins may be absorbed to a greater extent than iso- or cyclo-paraffins.</p> <p>The major classes of hydrocarbons are well absorbed into the gastrointestinal tract in various species. In many cases, the hydrophobic hydrocarbons are ingested in association with fats in the diet.</p> <p>For C9 aromatics (typically trimethylbenzenes – TMBs) Acute toxicity: Animal testing shows that semi-lethal concentrations and doses vary amongst this group. The semilethal concentrations for inhalation range from 6000 to 10000 mg/cubic metre for C9 aromatic naphtha and 18000-24000 mg/cubic metre for 1,2,4- and 1,3,5-TMB, respectively.</p> <p>Irritation and sensitization: Results from animal testing indicate that C9 aromatic hydrocarbon solvents are mildly to moderately irritating to the skin, minimally irritating to the eye, and have the potential to irritate the airway and cause depression of breathing rate. There is no evidence that it sensitizes skin.</p>
1,2,4-TRIMETHYL BENZENE & 1,3,5-TRIMETHYL BENZENE & CUMENE	<p>Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. Other criteria for diagnosis of RADS include a reversible airflow pattern on lung function tests, moderate to severe bronchial hyperreactivity on methacholine challenge testing, and the lack of minimal lymphocytic inflammation, without eosinophilia.</p>
1,2,4-TRIMETHYL BENZENE & 1,3,5-TRIMETHYL BENZENE	<p>Other Toxicity data is available for CHEMWATCH 12172 1,2,3-trimethylbenzene</p>
1,3,5-TRIMETHYL BENZENE & CUMENE & XYLENE	<p>The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.</p>

Acute Toxicity	✓	Carcinogenicity	✗
Skin Irritation/Corrosion	✓	Reproductivity	✓
Serious Eye Damage/Irritation	✓	STOT - Single Exposure	✗
Respiratory or Skin sensitisation	✗	STOT - Repeated Exposure	✓
Mutagenicity	✗	Aspiration Hazard	✓

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Legend: ✖ – Data either not available or does not till the criteria for classification
 ✔ – Data available to make classification

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

ANDREW MINERAL TURPENTINE	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	Not Available	Not Available	Not Available	Not Available	Not Available
naphtha petroleum, heavy, hydrodesulfurised	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	4.1mg/L	2
	EC50	48	Crustacea	4.5mg/L	2
	EC50	72	Algae or other aquatic plants	>1-mg/L	2
	LC50	96	Fish	0.14mg/L	2
	EC50	96	Algae or other aquatic plants	0.277mg/L	2
NOEC	720	Crustacea	0.024mg/L	2	
naphtha petroleum, light aromatic solvent	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	4.1mg/L	2
	EC50	48	Crustacea	3.2mg/L	2
	EC50	72	Algae or other aquatic plants	>1-mg/L	2
NOEC	72	Algae or other aquatic plants	=1mg/L	1	
1,2,4-trimethyl benzene	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	1.318mg/L	3
	EC50	48	Crustacea	ca.6.14mg/L	2
EC50	96	Algae or other aquatic plants	2.154mg/L	3	
1,3,5-trimethyl benzene	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	1.318mg/L	3
	EC50	48	Crustacea	13mg/L	5
	EC50	96	Algae or other aquatic plants	2.154mg/L	3
NOEC	384	Crustacea	0.257mg/L	2	
cumene	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	1.784mg/L	3
	EC50	48	Crustacea	0.6mg/L	2
	EC50	72	Algae or other aquatic plants	1.29mg/L	2
NOEC	72	Algae or other aquatic plants	0.22mg/L	2	
xylene	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	2.6mg/L	2
	EC50	48	Crustacea	1.8mg/L	2
	EC50	72	Algae or other aquatic plants	3.2mg/L	2
NOEC	73	Algae or other aquatic plants	0.44mg/L	2	
Legend:	Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 (QSAR) - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data				

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters.

Wastes resulting from use of the product must be disposed of on site or at approved waste sites.

When spilled this product may act as a typical oil, causing a film, sheen, emulsion or sludge at or beneath the surface of the body of water. The oil film on water surface may physically affect the aquatic organisms, due to the interruption of the oxygen transfer between the air and the water

Oils of any kind can cause:

ANDREW MINERAL TURPENTINE

- ▶ drowning of water-fowl due to lack of buoyancy, loss of insulating capacity of feathers, starvation and vulnerability to predators due to lack of mobility
- ▶ lethal effects on fish by coating gill surfaces, preventing respiration
- ▶ asphyxiation of benthic life forms when floating masses become engaged with surface debris and settle on the bottom and
- ▶ adverse aesthetic effects of fouled shoreline and beaches

In case of accidental releases on the soil, a fine film is formed on the soil, which prevents the plant respiration process and the soil particle saturation. It may cause deep water infestation.

For 1,2,4 - Trimethylbenzene:

Half-life (hr) air: 0.48-16;

Half-life (hr) H₂O surface water: 0.24 -672;

Half-life (hr) H₂O ground: 336-1344;

Half-life (hr) soil: 168-672;

Henry's Pa m³/mol: 385 -627;

Bioaccumulation: not significant. 1,2,4-Trimethylbenzene is a volatile organic compound (VOC) substance.

Atmospheric Fate: 1,2,4-trimethylbenzene can contribute to the formation of photochemical smog in the presence of other VOCs. Degradation of 1,2,4-trimethylbenzene in the atmosphere occurs by reaction with hydroxyl radicals.

For Aromatic Substances Series:

Environmental Fate: Large, molecularly complex polycyclic aromatic hydrocarbons, or PAHs, are persistent in the environment longer than smaller PAHs.

Atmospheric Fate: PAHs are 'semi-volatile substances' which can move between the atmosphere and the Earth's surface in repeated, temperature-driven cycles of deposition and volatilization. Terrestrial Fate: BTEX compounds have the potential to move through soil and contaminate ground water, and their vapors are highly flammable and explosive.

Ecotoxicity - Within an aromatic series, acute toxicity increases with increasing alkyl substitution on the aromatic nucleus.

For C₉ aromatics (typically trimethylbenzene - TMBs)

Chemicals in this category possess properties indicating a hazard for the environment (acute toxicity for fish, invertebrates, and algae from 1 to 10 mg/L). Category members are readily biodegradable, except 1,3,5-trimethylbenzene (CAS RN 108-67-8). Category members are not expected to be bioaccumulative.

Environmental Fate:

In the air, category member constituents have the potential to rapidly degrade through indirect photolytic processes mediated primarily by hydroxyl radicals with calculated degradation half-lives ranging from 0.54 to 2.81 days (based on a 12-hour day and a hydroxyl radical concentration of 5x10⁺⁵).

For Xylenes:

log K_{oc} : 2.05-3.08; K_{oc} : 25.4-204; Half-life (hr) air : 0.24-42; Half-life (hr) H₂O surface water : 24-672; Half-life (hr) H₂O ground : 336-8640; Half-life (hr) soil : 52-672; Henry's Pa m³/mol : 637-879; Henry's atm m³/mol - 7.68E-03; BOD 5 if unstated - 1.4,1%; COD - 2.56,13% ThOD - 3.125 : BCF : 23; log BCF : 1.17-2.41.

Environmental Fate: Most xylenes released to the environment will occur in the atmosphere and volatilisation is the dominant environmental fate process.

Soil - Xylenes are expected to have moderate mobility in soil evaporating rapidly from soil surfaces. The extent of the degradation is expected to depend on its concentration, residence time in the soil, the nature of the soil, and whether resident microbial populations have been acclimated.

DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
1,2,4-trimethyl benzene	LOW (Half-life = 56 days)	LOW (Half-life = 0.67 days)
1,3,5-trimethyl benzene	HIGH	HIGH
cumene	HIGH	HIGH
xylene	HIGH (Half-life = 360 days)	LOW (Half-life = 1.83 days)

Bioaccumulative potential

Ingredient	Bioaccumulation
1,2,4-trimethyl benzene	LOW (BCF = 275)
1,3,5-trimethyl benzene	LOW (BCF = 342)
cumene	LOW (BCF = 35.5)
xylene	MEDIUM (BCF = 740)

Mobility in soil

Ingredient	Mobility
1,2,4-trimethyl benzene	LOW (KOC = 717.6)
1,3,5-trimethyl benzene	LOW (KOC = 703)
cumene	LOW (KOC = 817.2)

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

Product / Packaging disposal

- ▶ **DO NOT allow wash water from cleaning or process equipment to enter drains.**
- ▶ It may be necessary to collect all wash water for treatment before disposal.

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- ▶ In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.
- ▶ Where in doubt contact the responsible authority.
- ▶ Recycle wherever possible.
- ▶ Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified.
- ▶ Dispose of by: burial in a land-fill specifically licensed to accept chemical and / or pharmaceutical wastes or Incineration in a licensed apparatus (after admixture with suitable combustible material).
- ▶ Decontaminate empty containers.

Ensure that the hazardous substance is disposed in accordance with the Hazardous Substances (Disposal) Notice 2017



Disposal Requirements

Packages that have been in direct contact with the hazardous substance must be only disposed if the hazardous substance was appropriately removed and cleaned out from the package. The package must be disposed according to the manufacturer's directions taking into account the material it is made of. Packages which hazardous content have been appropriately treated and removed may be recycled.

The hazardous substance must only be disposed if it has been treated by a method that changed the characteristics or composition of the substance and it is no longer hazardous.

SECTION 14 TRANSPORT INFORMATION

Labels Required

	
Marine Pollutant	
HAZCHEM	3Y

Land transport (UN)

UN number	1300
UN proper shipping name	TURPENTINE SUBSTITUTE
Transport hazard class(es)	Class : 3 Subrisk : Not Applicable
Packing group	III
Environmental hazard	Environmentally hazardous
Special precautions for user	Special provisions : 223 Limited quantity : 5 L

Air transport (ICAO-IATA / DGR)

UN number	1300
UN proper shipping name	Turpentine substitute
Transport hazard class(es)	ICAO/IATA Class : 3 ICAO / IATA Subrisk : Not Applicable ERG Code : 3L
Packing group	III
Environmental hazard	Environmentally hazardous
Special precautions for user	Special provisions : A3 Cargo Only Packing Instructions : 366 Cargo Only Maximum Qty / Pack : 220 L Passenger and Cargo Packing Instructions : 355

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Passenger and Cargo Maximum Qty / Pack	60 L
Passenger and Cargo Limited Quantity Packing Instructions	Y344
Passenger and Cargo Limited Maximum Qty / Pack	10 L

Sea transport (IMDG-Code / GGVSee)

UN number	1300
UN proper shipping name	TURPENTINE SUBSTITUTE
Transport hazard class(es)	IMDG Class : 3
	IMDG Subrisk : Not Applicable
Packing group	III
Environmental hazard	Marine Pollutant
Special precautions for user	EMS Number : F-E , S-E
	Special provisions : 223
	Limited Quantities : 5 L

Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

SECTION 15 REGULATORY INFORMATION

Safety, health and environmental regulations / legislation specific for the substance or mixture

This substance is to be managed using the conditions specified in an applicable Group Standard

HSR Number	Group Standard
HSR002650	Solvents (Flammable) Group Standard 2017

NAPHTHA PETROLEUM, HEAVY, HYDRODESULFURISED(64742-82-1.) IS FOUND ON THE FOLLOWING REGULATORY LISTS

IMO IBC Code Chapter 17: Summary of minimum requirements	New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals
IMO MARPOL (Annex II) - List of Noxious Liquid Substances Carried in Bulk	New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data
IMO Provisional Categorization of Liquid Substances - List 2: Pollutant only mixtures containing at least 99% by weight of components already assessed by IMO	New Zealand Inventory of Chemicals (NZIoC)
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs	New Zealand Land Transport Rule; Dangerous Goods 2005 - Schedule 2 Dangerous Goods in Limited Quantities and Consumer Commodities
International Air Transport Association (IATA) Dangerous Goods Regulations	New Zealand Workplace Exposure Standards (WES)
International FOSFA List of Banned Immediate Previous Cargoes	United Nations Recommendations on the Transport of Dangerous Goods Model Regulations
International Maritime Dangerous Goods Requirements (IMDG Code)	

NAPHTHA PETROLEUM, LIGHT AROMATIC SOLVENT(64742-95-6.) IS FOUND ON THE FOLLOWING REGULATORY LISTS

GESAMP/EHS Composite List - GESAMP Hazard Profiles	International Maritime Dangerous Goods Requirements (IMDG Code)
IMO IBC Code Chapter 17: Summary of minimum requirements	New Zealand Inventory of Chemicals (NZIoC)
IMO MARPOL (Annex II) - List of Noxious Liquid Substances Carried in Bulk	New Zealand Land Transport Rule; Dangerous Goods 2005 - Schedule 2 Dangerous Goods in Limited Quantities and Consumer Commodities
IMO Provisional Categorization of Liquid Substances - List 2: Pollutant only mixtures containing at least 99% by weight of components already assessed by IMO	United Nations Recommendations on the Transport of Dangerous Goods Model Regulations
International Air Transport Association (IATA) Dangerous Goods Regulations	

1,2,4-TRIMETHYL BENZENE(95-63-6) IS FOUND ON THE FOLLOWING REGULATORY LISTS

ANDREW MINERAL TURPENTINE

GESAMP/EHS Composite List - GESAMP Hazard Profiles

IMO IBC Code Chapter 17: Summary of minimum requirements

IMO MARPOL (Annex II) - List of Noxious Liquid Substances Carried in Bulk

IMO Provisional Categorization of Liquid Substances - List 2: Pollutant only mixtures containing at least 99% by weight of components already assessed by IMO

IMO Provisional Categorization of Liquid Substances - List 3: (Trade-named) mixtures containing at least 99% by weight of components already assessed by IMO, presenting safety hazards

International Air Transport Association (IATA) Dangerous Goods Regulations

International Maritime Dangerous Goods Requirements (IMDG Code)

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data

New Zealand Inventory of Chemicals (NZIoC)

New Zealand Land Transport Rule; Dangerous Goods 2005 - Schedule 2 Dangerous Goods in Limited Quantities and Consumer Commodities

United Nations Recommendations on the Transport of Dangerous Goods Model Regulations

1,3,5-TRIMETHYL BENZENE(108-67-8) IS FOUND ON THE FOLLOWING REGULATORY LISTS

GESAMP/EHS Composite List - GESAMP Hazard Profiles

IMO IBC Code Chapter 17: Summary of minimum requirements

IMO MARPOL (Annex II) - List of Noxious Liquid Substances Carried in Bulk

IMO Provisional Categorization of Liquid Substances - List 2: Pollutant only mixtures containing at least 99% by weight of components already assessed by IMO

IMO Provisional Categorization of Liquid Substances - List 3: (Trade-named) mixtures containing at least 99% by weight of components already assessed by IMO, presenting safety hazards

International Air Transport Association (IATA) Dangerous Goods Regulations

International Maritime Dangerous Goods Requirements (IMDG Code)

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data

New Zealand Inventory of Chemicals (NZIoC)

United Nations Recommendations on the Transport of Dangerous Goods Model Regulations

CUMENE(98-82-8) IS FOUND ON THE FOLLOWING REGULATORY LISTS

GESAMP/EHS Composite List - GESAMP Hazard Profiles

IMO IBC Code Chapter 17: Summary of minimum requirements

IMO MARPOL (Annex II) - List of Noxious Liquid Substances Carried in Bulk

IMO Provisional Categorization of Liquid Substances - List 2: Pollutant only mixtures containing at least 99% by weight of components already assessed by IMO

IMO Provisional Categorization of Liquid Substances - List 3: (Trade-named) mixtures containing at least 99% by weight of components already assessed by IMO, presenting safety hazards

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

International Air Transport Association (IATA) Dangerous Goods Regulations

International Maritime Dangerous Goods Requirements (IMDG Code)

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data

New Zealand Inventory of Chemicals (NZIoC)

New Zealand Workplace Exposure Standards (WES)

United Nations Recommendations on the Transport of Dangerous Goods Model Regulations

XYLENE(1330-20-7) IS FOUND ON THE FOLLOWING REGULATORY LISTS

GESAMP/EHS Composite List - GESAMP Hazard Profiles

IMO IBC Code Chapter 17: Summary of minimum requirements

IMO MARPOL (Annex II) - List of Noxious Liquid Substances Carried in Bulk

IMO Provisional Categorization of Liquid Substances - List 3: (Trade-named) mixtures containing at least 99% by weight of components already assessed by IMO, presenting safety hazards

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

International Air Transport Association (IATA) Dangerous Goods Regulations

International Maritime Dangerous Goods Requirements (IMDG Code)

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data

New Zealand Inventory of Chemicals (NZIoC)

New Zealand Workplace Exposure Standards (WES)

United Nations Recommendations on the Transport of Dangerous Goods Model Regulations

Hazardous Substance Location

Subject to the Health and Safety at Work (Hazardous Substances) Regulations 2017.

Hazard Class	Quantity beyond which controls apply for closed containers	Quantity beyond which controls apply when use occurring in open containers
3.1C	500 L in containers greater than 5 L 1500 L in containers up to and including 5 L	250 L 250 L

Certified Handler

Subject to Part 4 of the Health and Safety at Work (Hazardous Substances) Regulations 2017.

Class of substance	Quantities
Not Applicable	Not Applicable

Refer Group Standards for further information

ANDREW MINERAL TURPENTINE

Tracking Requirements

Not Applicable

National Inventory Status

National Inventory	Status
Australia - AICS	Yes
Canada - DSL	Yes
Canada - NDSL	No (xylene; naphtha petroleum, heavy, hydrodesulfurised; naphtha petroleum, light aromatic solvent; 1,3,5-trimethyl benzene; cumene; 1,2,4-trimethyl benzene)
China - IECSC	Yes
Europe - EINEC / ELINCS / NLP	Yes
Japan - ENCS	Yes
Korea - KECI	Yes
New Zealand - NZIoC	Yes
Philippines - PICCS	Yes
USA - TSCA	Yes
Taiwan - TCSI	Yes
Mexico - INSQ	Yes
Vietnam - NCI	Yes
Russia - ARIPS	Yes
Thailand - TECI	No (naphtha petroleum, light aromatic solvent; 1,2,4-trimethyl benzene)
Legend:	<p><i>Yes = All CAS declared ingredients are on the inventory</i></p> <p><i>No = One or more of the CAS listed ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)</i></p>

SECTION 16 OTHER INFORMATION

Revision Date	27/01/2017
Initial Date	27/01/2017

Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

Definitions and abbreviations

PC—TWA: Permissible Concentration-Time Weighted Average
 PC—STEL: Permissible Concentration-Short Term Exposure Limit
 IARC: International Agency for Research on Cancer
 ACGIH: American Conference of Governmental Industrial Hygienists
 STEL: Short Term Exposure Limit
 TEEL: Temporary Emergency Exposure Limit.
 IDLH: Immediately Dangerous to Life or Health Concentrations
 OSF: Odour Safety Factor
 NOAEL :No Observed Adverse Effect Level
 LOAEL: Lowest Observed Adverse Effect Level
 TLV: Threshold Limit Value
 LOD: Limit Of Detection
 OTV: Odour Threshold Value
 BCF: BioConcentration Factors
 BEI: Biological Exposure Index

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